

BAAL BONE UNDERGROUND

GLENCORE

Plan for

Pollution Incident Response Management

For Notification Procedure, please turn to Section 5

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1 Introduction

1.1 Background and Scope

The Protection of the Environment Legislation Amendment Act 2011 (PELA) received assent on 16 November 2011 resulting in changes to the Protection of the Environment Operations Act 1997 (POEO Act). The intent of the PELA is to improve the way pollution incidents are reported and managed. Provisions include a requirement for holders of Environmental Protection Licences (EPLs) to prepare, keep, test and implement a Pollution Incident Response Management Plan (PIRMP). The specific requirements for PIRMPs are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation). In summary, this legislation requires the following:

- holders of EPLs must prepare a pollution incident response management plan (section 153A, POEO Act);
- the plan must include the information detailed in the POEO Act (section 153C) and the POEO(G) Regulation (clause 98C) and be in the form required by the POEO(G) Regulation (clause 98B);
- licensees must keep the plan at the premises to which the EPL relates (section 153D, POEO Act);
- licensees must test the plan at least every 12 months and after a pollution incident in accordance with the POEO(G) Regulation (clause 98E); and
- if a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened within the meaning of Part 5.7 of the POEO Act, licensees must immediately implement the plan (section 153F, POEO Act).

As the holder of EPL 765, the Baal Bone Colliery (BBC) is required to comply with the POEO Act; as such, this document has been developed to satisfy the PIRMP requirements documented above.

This document also details the procedures for notification of pollution incidents resulting in or having the potential to cause material harm to the environment. The notification of environmental incidents under this PIRMP is only required for those incidents causing or threatening to result in material environmental harm (a material harm incident) as defined in the POEO Act (see **Section 5.1**).

1.2 Regulatory Requirements

Specific detail is required for inclusion in the PIRMP. **Table 1.1** lists information mandated under Section 153C of the POEO Act and clause 98C of the POEO(G) Regulation and details where this information is located in this document.

Table 1.1 Document Directory

Section 153C	Detail required	Location in document
(a)	<p>The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to:</p> <p>(i) The owners or occupiers of premises in the vicinity of the premises to which the EPL relates, and</p> <p>(ii) The local authority for the area in which the premises to which the EPL relates are located and any area affected, or potentially affected, by the pollution, and</p> <p>(iii) Any persons or authorities required to be notified by Part 5.7 (of the POEO Act).</p>	<p>Section 5.3</p> <p>Section 5.2</p> <p>Section 5.2</p>

(b)	A detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant EPL to reduce or control any pollution,	Section 4.0
(c)	The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,	Section 5.2
(d)	Any other matter required by the Protection of the Environment Operations (General) Regulation 2009 (as set out below): 98C (1)(a) A description of the hazards to human health or the environment associated with the activity to which the licence relates (the “ relevant activity ”).	Section 2.2
	98C (1)(b) The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood.	Section 2.2
	98C (1)(c) Details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity.	Section 2.2
	98C (1)(d) An inventory of potential pollutants on the premises or used in carrying out the relevant activity.	Section 2.3
	98C (1)(e) The maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates.	Section 2.3
	98C (1)(f) A description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident.	Section 4.0
Section 153C	98C (1)(g) The names, positions and 24-hour contact details of those key individuals who: (i) are responsible for activating the plan, (ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and (iii) are responsible for managing the response to a pollution incident.	Section 3.2
	98C (1)(h) The contact details of each relevant authority referred to in section 148 of the POEO Act.	Section 5.2
	98C (1)(i) Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on.	Section 5.3

	<p>98C (1)(j) The arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on.</p>	<p>Section 4.0</p>
	<p>98C (1)(k) A detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises.</p>	<p>Appendix 1</p>
	<p>98C (1)(l) A detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk.</p>	<p>Section 4.0</p>
	<p>98C (1)(m) The nature and objectives of any staff training program in relation to the plan.</p>	<p>Section 6.1</p>
	<p>98C (1)(n) The dates on which the plan has been tested and the name of the person who carried out the test.</p>	<p>Section 6.2 Section 7.0</p>
	<p>98C (1)(o) The dates on which the plan is updated.</p>	<p>Section 7.0</p>
	<p>98C (1)(p) The manner in which the plan is to be tested and maintained.</p>	<p>Section 6.2</p>

2 Premise Details

2.1 Site Details

BBC was an underground coal mine located beneath the Great Dividing Range, located in the Hawkesbury Nepean Catchment and Central West Catchment of NSW. The mine site is located within the Lithgow Local Government Area (LGA) and is approximately 5 kilometres north-east of the township of Cullen Bullen and approximately 25 kilometres north-west of Lithgow (refer to **Appendix 1**).

In 2011 BBC entered care and maintenance with no underground coal cutting activities being undertaken. During care and maintenance, BBC was used as a training and education facility for Glencore Coal Assets Australia (GCAA) new employees and/or existing employees that require additional training. In 2019 BBC commenced full mine closure. Mine closure activities were completed in mid 2022.

The surrounding area which may potentially be impacted by a pollution incident occurring at BBC, in addition to the premises itself may include the following:

- landholders adjacent to the mine site (refer to **Appendix 1**);
- downstream water courses (including inundation areas and adjacent landholders): Baal Bone Creek, Ben Bullen Creek and Jews Creek catchments, which subsequently flow into the Turon River and Macquarie River; and
- nearby townships of Cullen Bullen, Ben Bullen and Lithgow (refer to **Appendix 1**).

2.2 Major Hazards

The potential major hazards which have been identified for BBC include:

- spills (e.g. hydrocarbon, hazardous chemicals, etc) resulting in land contamination;
- spills (e.g. hydrocarbon, hazardous chemicals, saline or sediment laden water, etc) resulting in water contamination; and
- major water discharge (e.g. dam failure).

The likelihood of environmental hazards occurring at BBC has been captured through the **BBC Environment and Community Risk Assessment (E&C RA)**. The purpose of the E&C RA is to identify significant environment and community aspects and impacts across the complex, the risk they pose to operations and the controls necessary to effectively manage them. Management of impacts is prioritised according to the level of risk each aspect is assigned. Once all identified aspects, impacts, risks and management controls have been identified, high environmental risks (score of 17 or higher) are detailed in the **BBNUG-882012935-265 Environmental Aspects and Impacts Register**. These documents are prepared and reviewed in accordance with the **GCAA Risk and Change Management protocols (GCAA-625378177-2844 and GCAA-625378177-9979)**.

BBC implements a site specific Risk Management Standard (**BBNUG-882012935-3336**) that has been developed to comply with GCAA Standard **GCAA-625378177-9979 - Change** and **GCAA Standard GCAA-625378177-2844 - Risk Management**.

The systematic identification, assessment and management of foreseeable catastrophic (core) hazards is undertaken utilising the adopted Glencore Guideline for catastrophic (core) hazard management **GCAA Standard GCAA-625378177-2844 - Risk Management**.

This process includes:

- identifying foreseeable hazards associated with operations at BBC;
- assessing Sustainable Development risks using recognised analysis and evaluation methodologies; and
- implementing controls necessary to eliminate or reduce identified catastrophic (core) risks in accordance with the established hierarchy of controls for environmental management.

BBC has adopted the **GCAA Fatal Hazards Protocol**. The protocol includes nominated control measures to manage foreseeable catastrophic (core) hazards. The **GCAA Fatal Hazards Protocol** includes hazards that could result in either:

- multiple fatalities;
- irreversible, severe environmental damage; or
- a health or community issue that causes significant long-term harm.

2.3 Chemicals and Potential Pollutants

Due to the mine closure status of BBC, there are limited quantities of chemicals onsite.

All chemicals at BBC are included in a central register available in the BBC office.

All chemicals are accompanied by the relevant Material Safety Data Sheets as required by work health and safety regulations. The maximum quantity stored of designated chemicals such as fuel and oil located on the premises is detailed in the hazardous substances register.

Potential pollutants created as part of site operations, and thus excluded from registers, include:

- sediment laden surface water runoff from disturbed areas; and
- effluent waste.

These materials are in a constant state of flux as a result of site operations. Risks associated with these potential pollutants are incorporated into the risk register detailed discussed above.

3 Management and responsibilities

3.1 Legal Duty to Notify

All BBC employees and contractors are responsible for alerting management personnel to all environmental incidents or hazards which may result in an environmental incident, regardless of the nature or scale.

Notification responsibilities are detailed in the POEO Act (Section 148), which encompasses all site personnel, including contractors and sub-contractors. These can be categorised broadly as:

- the duty of an employee or any person undertaking an activity:

Any person engaged as an employee or undertaking an activity (at BBC) must, immediately after becoming aware of any potential incident, notify their relevant manager of the incident and all relevant information about it. This is to be undertaken as per **Section 5.2**; and
- the duty of the employer or occupier of a premises to notify:

An employer or occupier of the premises on which the incident occurs, who is notified (or otherwise becomes aware of) a potential pollution incident, must undertake notification to the appropriate regulatory authority of any “material harm incidents”, including relevant information. Notification shall be undertaken by the Environment and Community Coordinator or Operations Manager as per **Section 5.2**.

3.2 PIRMP Management

The specific responsibilities associated with the management and implementation of the PIRMP is outlined in **Table 3.1** below.

Table 3.1 PIRMP Management Responsibilities

Name	Contact details	Position	Responsibility
Mark Bulkeley	(02) 6350 6943 0407 466 574	Operations Manager	Responsible for authorising the PIRMP and all subsequent updates. Responsible for ensuring adequate resourcing for implementation of the PIRMP. Authorised to liaise with the relevant authority. Responsible for coordinating the response to a pollution incident. Facilitate site personnel in implementation of the PIRMP.
Elizabeth Fishpool	(02) 6350 6920 0457 811 350	Environment and Community Coordinator	Responsible for undertaking notification as defined in this PIRMP. Responsible for managing the response to a pollution incident. Responsible for arranging testing and updating of the PIRMP. Responsible for ensuring notification and training of PIRMP. Responsible for coordinating communications with affected community members. Responsible for coordinating the response to a pollution incident. Facilitate site personnel in implementation of the PIRMP. Communication of the PIRMP to site personnel.

4 Incident Management

A pollution incident is defined in the POEO Act as an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

In the case of an environmental incident, prior to any other action, the site must contact 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not pose any threat to human health or property, concurrently with contacting emergency services (000), all possible actions should be taken to control the pollution incident and minimise health, safety and environmental consequences. These actions must be employed to the maximum extent possible to:

- provide for the safety of people at and within the vicinity of the site, and
- contain the pollution incident.

In compliance with **GCAA Standard GCAA-625378177-9992 –6.0 Incident**, the actions to be implemented at BBC on the occasion of an incident include the following:

1. Secure the scene and contain the incident.
2. Gather information (i.e. environmental monitoring).
3. Determine the investigation level.
4. Commence an ICAM (if required).
5. Review and classify information and determine actions.
6. Complete actions.
7. Trend analysis reports.

Arrangements, including description and location of safety equipment, for minimising risk of harm to people and the environment as result of a pollution incident, and for containing or controlling a pollution incident, are included in **BBNUG-882012935-4296 Emergency Response Control Plan**.

The **BBC Emergency Response Control Plan** describes how Baal Bone Colliery provides for managing emergencies within the project/lease area during mine closure. Any changes to emergency procedures are documented and communicated to all personnel. These procedures have been developed to align with the requirements of **CAA HSEC STD 0007 Emergency Standard**.

Incident management at BBC focuses on actions to:

- secure and assign necessary tactical response resources, including equipment and/or personnel, to minimise the environmental impacts associated with the incident;
- establish that tactical response operations are carried out in a safe, well-organised, legal and effective fashion;
- provide for the safety and welfare of all responders, employees, contractors and visitors;
- continuously assess the incident to determine the adequacy of tactical response operations and the need for assistance from the GCAA Crisis Management Team;
- manage stakeholders arriving at site;
- minimise effects on people, the environment, property, production, and company reputation;
- implement an environmental monitoring program to quantify impacts as a result of the incident as well as to be used as the basis to notify adjacent landholders and downstream water users as to whether avoidance or remediation measures are required; and
- interact, as appropriate, with GCAA personnel.

Emergency Management at BBC is undertaken in accordance with **BBNUG-882012935-4296 Emergency Response Control Plan**. With regards to the specific major hazards identified in **Section 2.2**, Trigger Action Response Plans (TARPS) have been identified to manage these hazards. **Table 4.1** below provides reference to the TARPS which will be implemented in the event that a hazard requires an emergency response to be initiated.

Table 4.1 – BBC Hazards and Emergency Response Documentation.

Hazard	Hazards and Emergency Response Documentation.
spills (e.g. hydrocarbon, hazardous chemicals, etc) resulting in land and or water contamination;	BBNUG-882012935-1976 Hazardous Substances Management Plan
major water discharge (for example dam failure)	BBNUG-882012935-4296 Emergency Response Control Plan

All BBC employees and contractors receive emergency preparedness and response training during their site familiarisation induction. Controls of personal protective equipment and incident containment and control equipment are detailed in the risk assessment documents listed in **Section 2.2**, this includes but is not necessarily limited to:

- emergency spill kits;
- portable pumping infrastructure; and
- earth moving plant.

BBC has limited authority to undertake pollution management activities on private property, or outside the site boundary and in such cases will liaise directly and provide appropriate assistance to the relevant authority and emergency services.

5 Notification Procedures

5.1 Determination of Material Harm

Following containment of the incident, immediate action must be taken to determine if the incident can be classified as a 'material harm incident', i.e. considered to be causing or threatening material harm. As defined by Section 147 of the POEO Act, a material harm incident has occurred if the incident:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss (including all reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations).

It is possible for a material harm incident to occur on land that is within the boundary of the EPL.

The determination of a material harm incident will be made by the Operations Manager in consultation with the Environment and Community Coordinator. If the Operations Manager is not available immediately, the determination will be made by the Environment and Community Coordinator.

5.2 Internal and External Notification

As discussed in **Section 3.1**, notification of an environmental incident is the responsibility of all site and contractor personnel. The PIRMP Notification Flowchart in **Table 5.2** outlines the process of notification both internally and externally if an incident occurs. In the event of an incident, response and notification must be undertaken as per **Table 5.1**, which contains the following important information:

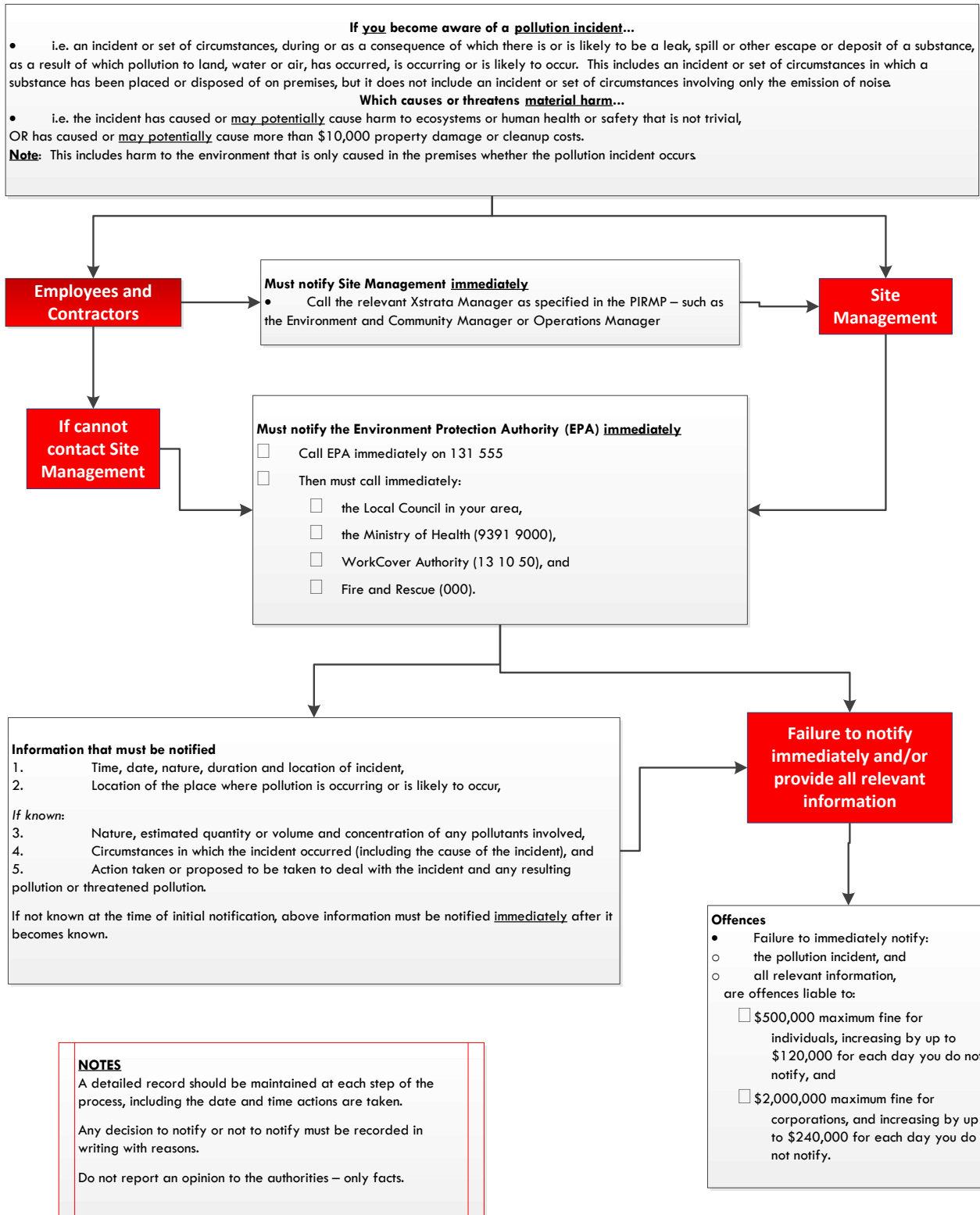
- the local government authority for the area in which the EPL is issued;
- the persons and authorities to be notified by Part 5.7 of the POEO Act; and
- the contact details of each relevant authority referred to in section 148 of the POEO Act.

The agencies listed in **Table 5.1** must be contacted in the order outlined below:

Table 5.1 PIRMP Notification Requirements

Agency	Contact details
Fire and Rescue	000 (To be contacted first if the incident presents an immediate threat to human health or property and emergency services are required, or last if emergency response is not required.)
EPA	131 555
Ministry of Health (Sydney West Office)	(02) 9840 3811 (ask for Public Health Officer on call)
Work Cover	131 050
Lithgow City Council	(02) 6354 9999

Table 5.2 PIRMP Notification Flowcart



In the instance of identification of an environmental incident or hazard, the personnel will report the issue immediately to their manager, who in turn shall report it to the Environment and Community Coordinator, or any member of the environmental team. Immediately is taken to mean 'promptly and without delay'. As per guidance provided by the EPA, the decision on whether to notify the incident in accordance with Part 5.7 of the POEO Act should not delay immediate actions to provide the safety of people or contain a pollution incident. However, incident notification will be made as soon as it is safe to do so.

In addition to being detailed in this document, procedures for undertaking internal and external notification are included in **BBNUG-882012935-57 Emergency Management System**.

Record keeping of incident details, including investigations and outcomes, will be undertaken in accordance with **CAA HSEC PCL 0020 – 11.01 Environmental Compliance Management**.

After initial notification of any material harm incident, it will be the responsibility of the Environment and Community Coordinator to liaise with any authority listed in **Table 5.1** that requests additional information, or is providing directions for management of the material harm incident. This may include incident investigation reports and ongoing environmental monitoring results.

5.3 Notification to Local Landholders and Community

Community notification shall be undertaken at the determination of the Environment and Community Coordinator. Names and contact details of stakeholders, including local and downstream residents are included in the **BBNUG-882012935-284 Stakeholder and Community Contacts**. The following notification methodology is proposed to be utilised as required:

- early warnings: same day telephone notification to landholders whom may be affected by the incident over the subsequent 24 hour period; and
- updates: follow up phone calls to all landholders whom may have been notified by the initial early warning. Updates are to be provided to the broader local community in affected areas via information sheets or newsletters, Community Consultative Committee meetings, BBC website, or media statements.

Priority will be granted to notification of sensitive premises in close proximity such as schools, pre-schools, nursing homes and hospitals. Information provided to the community will be relevant to the incident and may include the following details:

- type of incident that has occurred;
- potential impacts to local landholders and the community;
- site contact details; and
- advice or recommendations based on the incident type and scale.

6 Training, Testing and Communication

6.1 Training

All BBC personnel affected by the content of this document will receive instruction or explanation on the relevant parts of the document as per the **BBNUG-882012935-1544 Training and Competency Management System**.

All training records, including the name of the person undertaking training and date of training, shall be maintained in accordance with **BBNUG-882012935-4283 Documents, Data and Records Control**.

6.2 Testing Review and Maintenance

The testing of the PIRMP will be undertaken to check that the information is accurate and current and that the plan is capable of being implemented in a workable and effective manner. Testing shall be undertaken in the following ways:

1. the PIRMP will be tested by assessing and reviewing it and making any necessary changes as identified. Testing is taken to be either a desktop review or an environmental emergency drill procedure. Testing will include all components of the plan, including training requirements;
2. a review of the PIRMP will occur every 12 months commencing from the date of authorisation by the BBC Operations Manager. Contact details in this document must be kept current at all times; and
3. the PIRMP will be reviewed within one month from the date of any pollution incident that occurs in the course of an activity to which the EPL relates. This review will be undertaken in light of the incident, to provide the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

Records will be kept in accordance with **BBNUG-882012935-4283 Documents, Data and Records Control** and will be included in Section 7 of this plan. Information to be retained regarding PIRMP testing includes:

- the manner in which the test was undertaken;
- dates when the plan has been tested;
- the person who carried out the testing; and
- the date and description of any update of or amendment to the plan.

6.3 Availability of the PIRMP

The PIRMP shall be kept in written form at the EPL premises and shall be made available to all personnel responsible for implementing the plan, and to an authorised officer (as defined in the POEO Act) on request.

The PIRMP will be made publicly available within 14 days of finalisation (taken to be authorisation of the PIRMP by the BBC Operations Manager) via the BBC website, in a prominent position and on a publicly available page.

No personal information (within the meaning of the *Privacy and Personal Information Protection Act 1998*) will be made publicly available as part of the PIRMP.

7 Review Register

Date of Test	Name of Personnel Undertaking Test	Manner of Testing	Summary of Changes (include brief detail and section number)	Date of Update
20/6/2013	N Van den Berg M. Holland	Audit (Desktop Review)	Stakeholder list updated Site contacts updated	30/8/2013
30/3/2014	N Van den Berg	Review and Update	Stakeholder Contact List Site contacts updated	30/3/2014
18/6/2014	E. Wood	Audit (Desktop Review)	Update to Table 1.1 Updated plans (Appendix 1)	30/06/2014
26/05/2015	B. Anderson	Audit (Desktop Review)	Site contacts updated Updated to include GCAA documents	29/05/2015
12/10/2015	E. Mudford	Review and update	Site Environment and Community Officer contact updated	12/10/2015
19/01/2016	E. Fishpool	Review and update	Site contacts updated. Updated to include new GCAA and BBC documents.	19/01/2016
22/06/2016	E. Fishpool	Audit (Desktop Review)	Site contacts updated. Training requirements amended.	27/06/2016
03/08/2016	A van der Kroft	Review and update	Site contacts updated. Updated to include new GCAA documents.	03/08/2016
06/09/2017	E. Fishpool & N. Harry	Audit (Desktop Review)	Site contacts updated.	06/09/2017
19/03/2018	E. Fishpool	Review and update	Site contacts updated Document numbers updated.	19/03/2018
21/08/2018	E. Fishpool	Audit (Desktop Review)	Minor updates	21/08/2018
26/09/2019	E. Fishpool	Audit (Desktop Review)	Minor updates	26/09/2019
22/09/2020	G. Peard & E.Fishpool	Audit (Desktop Review)	Site Contact Updated, E&C Role changed to Coordinator.	22/09/2020
1/12/2020	E.Fishpool & G.Peard	Environmental Emergency Drill Exercise	Plans of potential pollutants updated	7/12/2020
24/11/2021	E. Fishpool	Audit (Desktop Review)	Site contacts updated. Updated sections for mine closure.	24/11/2021
29/11/2022	E. Fishpool	Audit (Desktop Review)	Site contacts updated. Updated sections for mine closure. Removed redundant plans (e.g. location of hydrocarbons)	29/11/2022
21/12/2023	E. Fishpool	Audit	Amend Section 2.3	1/02/2024

		(Desktop Review)		
2/12/2024	E.Fishpool	Audit (Desktop Review)	Minor updates	2/12/2024

Appendix 1 – Figures

